REMARKS

Claims 1, 7-15, 21-29, and 35-42 are pending. The Board of Patent Appeals and Interferences (hereinafter "BPAI") issued a Decision on Appeal on August 23, 2011 (hereinafter, the "Decision").

A.   The rejections of claims 1, 15, and 29 under 35 USC 112, first paragraph

The Decision reversed the rejection of claims 1, 15, and 29 under 35 USC 112, first paragraph. Decision at 6, 7.

B.   The rejections of claims 1 and 7-14 under 35 USC 101

The Decision affirmed the rejection of claims 1 and 7-14 under 35 USC 101. Decision at 10. As part of this finding, the BPAI ruled that "the scope of the 'memory' of claim 1 is not limited to a machine memory, but also broadly encompasses a human memory that is capable of saving a result as a mental step." Decision at 8. Applicant has amended claim 1 to require that the result be saved in a "machine memory." This amendment is supported throughout the specification as originally filed and in particular in paragraphs [0016] – [0017]. Claim 1 satisfies the "machine" prong of the "machine-or-transformation" test because of this amendment.

The BPAI further found in its affirmation of the rejection of claims 1 and 7-14 under 35 USC 101 that "the process of claim 1 'could be performed by a human writing on a piece of paper." Decision at 9. Applicant has amended claim 1 to require that a computer perform elements of the claim. These amendments are supported throughout the specification as originally filed and particularly in paragraphs [0013] – [0020].

As amended, claim 1 and claims 7-14, which depend from claim 1, satisfy 35 USC 101. This is particularly true under the recent admonition from the Federal Circuit that

> [t]he eligibility exclusion [from patentable subject matter] for purely mental steps is particularly narrow. *See Prometheus Labs., 628 F.3d at 1358* (noting that claims must be considered as a whole and that 'the presence of mental steps [in a

claim] does not detract from the patentability of [other] steps'). *Ultramercial, LLC v. Hulu, LLC*, 2011 U.S. App. Lexis 19048 at *18 (September 15, 2011 Federal Circuit).

Thus, even if some of the elements of claim 1 can be considered "mental steps," the fact that most of the claim elements are required to be performed by a computer and that the memory is a machine memory mean that claims 1 and 7-14 avoid the "particularly narrow" exclusion for mental steps. Applicant respectfully requests a finding that amended claim 1 and claims 7-14 satisfy 35 USC 101.

C.   The rejections of claims 29 and 35-42 under 35 USC 101

The Decision reversed the rejection of claims 29 and 35-42 under 35 USC 101. Decision at 10.

D.   The new ground of rejection of claims 15 and 21-28 under 35 USC 101

The Decision entered a new ground of rejection for independent claim 15 and associated dependent claims 21-28 under 35 USC 101. The BPAI found "the process invoked by the executable instructions of claim 15 [to be] essentially similar to that of claim 1" and rejected claim 15 for the same reasons that it used for claim 1. Applicant amended claim 15 in the same way that claim 1 was amended to require that the recited memory be a "machine memory." Further, the elements of claim 15 are already required to be performed by a computer. *See* the last 5 words of the preamble of claim 15 ("that cause a computer to"). Consequently, because the "underlying invention" satisfies 35 USC 101," *see* Decision at 11 (the BPAI looks "to the underlying invention for patent-eligibility purposes"), for the reasons described above in the analysis of claim 1, claim 15 satisfies 35 USC 101. Applicant respectfully requests a finding that amended claim 15 and claims 21-28 satisfy 35 USC 101.

E.   The new ground of rejection of claims 29 and 35-42 under 35 USC 112, second paragraph

The BPAI entered a new ground of rejection of claims 29 and 35-42 under 35 USC 112, second paragraph. Decision at 12. In particular, the BPAI found that claim 29's recitation of "a massively parallel processing *system* including . . . a plurality of CPUs" (emphasis in original) and "a *process* for execution on the massively parallel processing system . . ." (emphasis in original) rendered claim 29 a "hybrid claim directed to a system and a method for using that system" and therefore indefinite. Decision at 12. Applicant believes this new ground of rejection is unfounded but to advance prosecution has amended claim 29 to replace the word "process" with the phrase "computer program." Amended claim 29 can no longer be improperly interpreted to be a "hybrid claim directed to a system and a method for using the system" but is properly interpreted as a system that includes a massively parallel processing system and a computer program that executes on the massively parallel processing system. Applicant respectfully requests a finding that amended claim 29 and dependent claims 35-42 satisfy 35 USC 112.

E.   The rejection of claims 1, 7-15, 21-29, and 35-42 under 35 USC 103.

The Decision reversed the rejections of claims 1, 7-15, 21-29, and 35-42 under 35 USC 103. Decision at 13-14.

F.   The Final Office Action's objections to the drawings.

The April 28, 2008 Final Office Action (hereinafter the "Final Office Action") objected to Fig. 11B because of a typographical error. Fig. 11B was amended to correct the error in Applicants Response to Final Office Action filed on July 28, 2008.

The Final Office Action argued that the drawings do not show the method of the independent claims. The Final Office Action argued that "[r]eferenced Fig. 1 does not show a

method, and does not contain elements 320 and 325." Final Office Action at 22. Applicant respectfully disagrees. Fig. 1 shows the Parsing Engine 130, which is shown in greater detail in Fig. 2. Fig. 2 shows a Parser 205, which is shown in greater detail in Fig. 3. Fig. 3 includes elements 320 and 325.

The Final Office Action further argued that "it is unclear which steps of Figs. 5-6 and 11A-12 correspond to at least the claim limitations 'performing expression optimization,' 'performing further query optimization,' 'saving the result,' 'representing the query as a tree structure,' and 'representing the expression . . . as a parent node having . . . child node[s].'" Final Office Action at 22.

"[F]low charts or source code listings are not a requirement for adequately disclosing the functions of software." Fonar Corp. v. General Electric Co., 107 F.3d 1543, 1549 (Fed. Cir. 1997) (best mode context); MPEP 2163(I)(A). Embodiments of claim limitations "performing expression optimization" and "performing further query optimization" are shown in Fig. 3, elements 320 and 325 and in Figs. 5-13. An embodiment of the element "saving the result" is shown as the output of element 325, as discussed above. Embodiments of the elements "representing the query as a tree structure" and "representing the expression in the tree structure as a parent node having a first child node and a second child node" are shown in Figs. 4A and 4B.

Applicant respectfully requests that the drawings be found acceptable.

SUMMARY

Applicant contends that the claims are in condition for allowance, which action is requested. Applicant requests that any fees required with this submission be debited from deposit account number 50-4370.

Respectfully submitted,

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